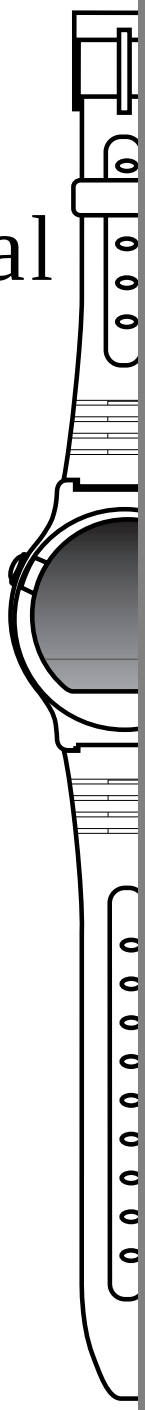
Basix

Heart Rate Monitor

ACUMEN

Instruction Manual



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Basix

Congratulations!

Welcome to the future of wireless heart rate technology! Your purchase today shows that you are serious about your exercise and are committed to achieving your best. Today, getting the most from your exercise doesn't necessarily mean you have to spend longer periods of time to achieve those goals. With Target Heart Rate Training, you will increase the effectiveness of your workout by monitoring and quantifying your results every step of the way. For most individuals as little as 20 minutes in your target heart rate zone each session is enough to achieve substantial health improvements. The Acumen Basix will act as your personal coach and guide you to your fitness goals more effectively.

Mission Statement

At Acumen we have listened to what people such as yourself have been asking for in a heart rate monitor and are committed to your satisfaction. We know you will enjoy the all of the added features, along with those never found before in other heart rate monitors,
and the ease of use incorporated into our products. If you ever have any questions, comments or suggestions, please write or call our staff. We greatly value your feedback and look forward to continuing to provide you with products and support that's second to none. Thank you for your purchase and anticipated support.

Product Development Team

Warning

Overexertion can cause serious injury, including heart attacks. Some individuals cannot safely elevate their heart rate to the levels of typically used heart rate training zones. No one should begin an exercise program without first obtaining medical clearance, especially if there is a personal or family history of heart disease, high blood pressure, or if you are over age 40, have diabetes, high cholesterol, smoke cigarettes, are overweight or are taking certain medications. Stop exercising and seek medical attention if you notice signs of overexertion or heart problems, such as pain or pressure in the left or mid-chest area or left neck, shoulder or arm, light-headedness, cold sweat, unusual paleness or fainting. Also note that the signals used by this monitor may interfere with a pacemaker or other implanted devices, consult the manufacturer of the implant device and/ or your physician prior to using this monitor.

1 Year Limited Warranty

This product is warranted by Acumen, Inc. for a period of one year from date of original purchase (with the exception of batteries and elastic chest strap) under normal use, to be free from defects in material and workmanship. This warranty does not cover damage caused by accidents, misuse, abuse, tampering or disassembling of the product. Acumen, Inc. reserves the right to determine the cause of malfunction and will repair or replace your Acumen HRM at no charge except for shipping and handling. For warranty service, you must provide proof of purchase & date of purchase, along with a check or money order for $7.50 to cover the costs of shipping and handling. For service, please see the insert attached at back of the user's manual. Warranty is voided if repairs have been made by individuals not authorized by Acumen, Inc..

No responsibility is assumed for any incidental or consequential damages, including but without limitation damages or injuries resulting from possible measurement inaccuracies or malfunctions.

Basix Features Include:

- Shock resistant design
- Water resistant to 30 meters
- EZ- Set Target Zone[Pat Pend] automatic programming
- Target Zone (TZ) audible and visual alarm indicators
- Wireless ECG accurate heart rate chest belt
- 12/24hr. time display with daily alarm

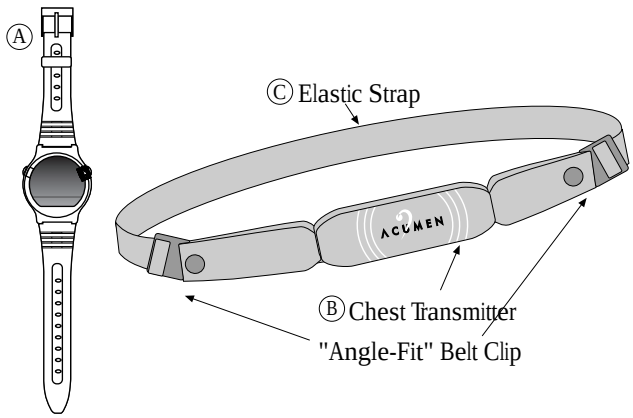
Basix Components

The package includes:

A.) Pulse watch receiver (Heart Rate Monitor)
- Sleek, sporty styling with an easy to read display and comfortable button locations.

B.) Chest transmitter
- Soft flexible electrodes comfortably hug your chest providing optimum stability.

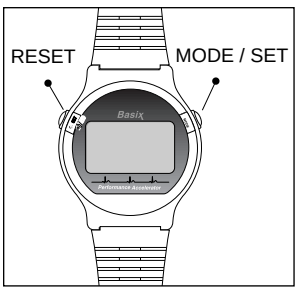
C.) Adjustable elastic strap with EZ-Fit Belt Clip
- Easy to adjust and includes a unique angled design patented clip which helps eliminate slippage and provides added comfort.



Buttons And Functions

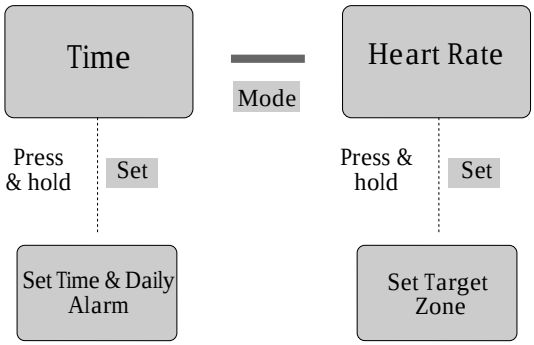
- MODE / SET - Pressmomentarily to change modes.
- RESET / ALARM (•)))Press & Hold to switch alarm sound ON/OFF(when in Time or HR mode).

Note: All buttons produce one shortbeep when pressed. Press and hold commands also produce another beep.



Modes Of Operation

To switch through different modes, click the MODE button.



Basic Use Of Setting Modes

The two setting modes are accessed from the Time of Day & HR modes.

- Press & hold the SET button to enter setting mode.
- Adjust blinking digits with the MODE button.
- Press MODE button to increase the digits. Press and hold changes the digits fast.
- Proceed to the next setting option with the SET button.
- To exit setting mode when finished, just press and hold the SET button .

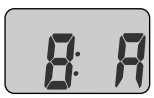
Note: If no button is pressed after 1 minute the watch will automatically exit the setting mode.

Setting the Clock

Start from the Time-of-Day mode.

1. Press & hold the SET button to enter the time setting mode.

2. Hour (blinking) -set by using the MODE button. Press the SET button to proceed to the next item.



3. Minutes (blinking) -set by using the MODE button. Press the SET button to proceed to the next item.

4. 12/24hr. time display (blinking)-set by using the MODE button. Press the SET button to proceed to the next item.

5. Daily Alarm (blinking) -set on or off with the MODE button. Press the SET button to proceed to the next item.

6. Alarm hour (blinking) -set by using the MODE button. Press the SET button to proceed to the next item.

7. Alarm minutes (blinking) -set by using the MODE button. Press the SET button to exit the setting mode.

Setting Alarm Sound ON & OFF

The alarm •)) sound for both the Daily Alarm and the Target Zone Range can be turned ON or OFF by pressing the alarm button. To indicate this, the alarm indicator "•)) " on the display will switch ON or OFF.

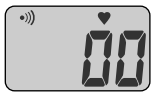
To switch the Daily Alarm ON/OFF press the "•))" button while in the Time Mode. When this alarm is beeping it can be silenced by pressing any button.

To activate or deactivate the Target Zone Alarm Sound simply press the "•))" button while in the Heart Rate Mode.

Setting Your Target Zone

Start from the Heart Rate Mode

1.Press & hold the SET button to enter the setting mode.



2. Age (blinking) -set using the MODE button (Range is 7-99, default is 30.). Press the SET button to proceed to the next item. (If you want to use the built-in EZ-Setting of 65-85% of your max, set only your age and skip steps 3, 4 & 5 by pressing SET 3 times.)

3. Target Zone Alarm (blinking) -set ON/OFF using the MODE button. Press the SET button to proceed to the next item.

4. Target Zone High (blinking) -set using the MODE button (TZ High auto-sets based on age setting, modifying it is optional.). Press the SET button to proceed to the next item.

5. Target Zone Low (blinking) -set using the MODE button (TZ Low also auto-sets based on age setting, modifying it is optional.). Press the SET button to exit setting mode.

[Note: Any items not set, will default to standard average values. The TZ limits automatically set to 65-85% of your max, based on your age setting (where Max. = 220 - Age) (every time the age setting is changed). This watch will allow you to program your upper and lower limits within one beat of each other (for those who want to hear their heart beat continuously) and will also allow you to set either limit to the "off" position, but it will not let you set the lower limit higher than the upper or the upper to less than the lower.]

Determining your Target Zone

What is Target Zone Heart Rate Training? In order to benefit the most from your workout, you need to become familiar with your heart rate training zone. By working with the correct range, you will achieve your fitness goals and strengthen your cardiovascular system in less time. Here is basically how it works.

Effective conditioning requires that you maintain your heart rate at the proper level for at least 20 minutes per workout (or per day). At too high of a heart rate your activity can become counter effective. For most people, as your heart rate exceeds 85% (the upper limit), your body begins to become anaerobic and produce acids. This also burns less fat which can begin to burn and strain muscles, and even start storing fat. As for the Lower limit, this number tells you when you have reached a level of intensity that is productive. A heart monitor will tune you into your body's internal activity level and helps prevent injury or worse.

To make this part easy for you, this monitor automatically sets the correct target zone for you, after you enter in your age in the heart rate setup mode. The internal auto-setting is based on a generally accepted standard range of 65 to 85% of your Max HR (where mHR = 220- Age).

There are many variations of formulas for calculating target zones. In most cases they will come up with a range very close to or the same as the auto-setting of this watch. If you prefer to fine-tune or program your own limits, this can be done in the 2nd portion of the HR Setting Mode (see page 7). The internal automatic TZ calculation is based on the following example:

Target Zone Calculation Formula

220 - Your Age = Max HR

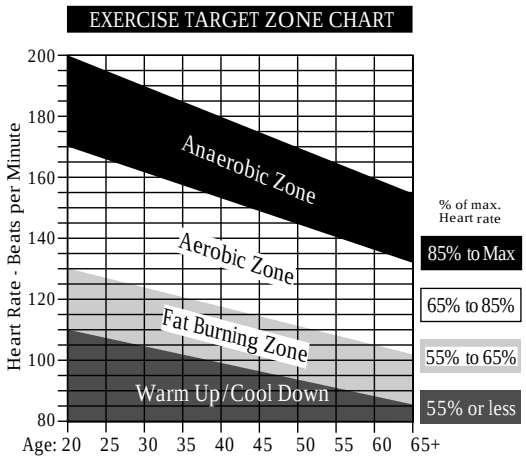
(For a 30 year old, your calculations would be as follows.)

220 - 30 = 190 Maximum heart rate (mHR)
65% of this number = 123.5
85% of this number = 161.5

The calculated exercise range for a 30 year old would be a low of 124 and a high of 162 beats per minute.(You should never exercise near your maximum heart rate (mHR) for any period of time.)

Basic Fitness Tips And Target Zone Explanation

Depending on your specific goals, individual fitness level or just on how energetic you feel, you may want to modify your range from one day to the next based on the following chart:



Stretching- Begin and end every workout with stretching. Stretching done before your workout increases flexibility to help prevent muscle strain or injury and stretching after, loosens tight muscles and helps prevent soreness.

- Stretch before warm up & after cool down.
- Stretch slowly & gently, never bounce or stretch to a point of pain.
- Hold each stretch 30-60 sec. & exhale as you extend stretches.

Warm Up & Cool Down, 55% or less -Start every exercise with a slow and gradual warm up and end with a slow and gradual cool down. Smoothly easing into and out of strenuous activity helps your body prepare your metabolism and blood flow to efficiently break down fat and change over from one intensity level to another. Going into your target zone too quickly can cause your heart rate to increase too rapidly causing you to loose your energy too soon, strain yourself or possibly worse.

- Slowly bring your heart rate to a level just below the lower limit of your target zone.
- Maintain heart rate at this level for 5-10 min.

The Fat Burning Zone, 55-65% -This range is recommended for those who haven't worked out in a long time, are trying to loose weight, those at a high risk for heart problems or if you're just not feeling 100% one day. It is intended for low intensity and/or long duration exercise. The lower intensity helps you maintain your exercise for longer periods of time. When exercising for weight loss or starting a new exercise routine, longer duration is more important and much healthier than higher intensity.

- Build up gradually to 30 to 60 min. per workout.
- Workout 3 or 4 times per week.

The Aerobic Zone, 65-85% -This range is recommended for those in good physical condition who have been exercising on a consistent basis for an extended period of time. Exercising at this range helps improve your fitness level and prevent injury caused from overtraining.

- Duration: 20-30 min. per workout.
- Frequency: At least 3 or 4 times per week.

The Anaerobic Zone, 85%-mHR - To be used by ultra-athletes only and never recommended without close medical approval or supervision. This range is used only for those in extremely good physical condition during races or training for competition. It is typically used for interval training (or short sprints) to help improve or measure endurance levels.

Monitor Your Progress - Track yourself to determine how your overall health and fitness improves. As your cardiovascular system improves your normal resting heart rate will decrease. It will begin to take longer to reach your target zone and it will be easier to keep your heart rate steady during exercise. If you notice your resting heart rate higher than normal you should take a rest from exercise or at least workout easier that day. It may be an indication that your body has not completely recovered from a previous extraneous workout or injury. It could also be an indication of an illness coming on, stress, or a good reason for a check up with your doctor.

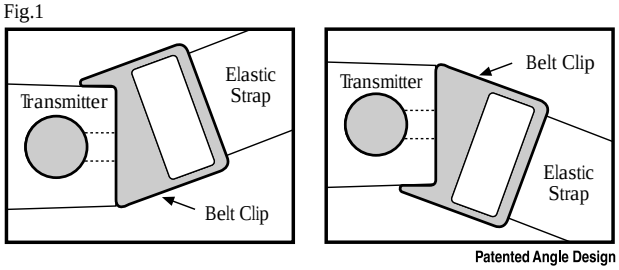
Good luck and have fun! We'll see you at the finish line...

Operating Your Basix

Attaching Your Heart Monitor

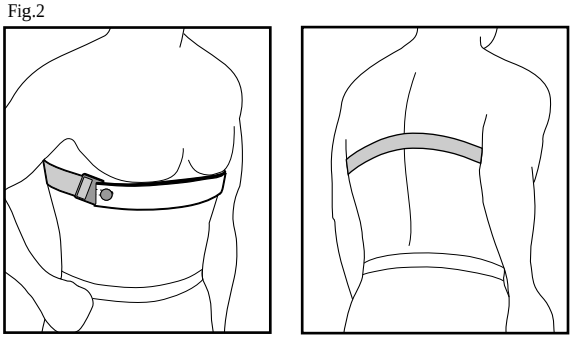
1.) Attach the adjustable strap to one side of the transmitter. Push the round tab of the belt clip through the back side of the attaching hole on the transmitter and twist it into place (Fig. 1). The unique angled clip is designed to prevent the belt from slipping down your chest. It can be attached in either the up or down position (keeping both the same). Depending on the contour of your torso, one direction may be more comfortable than the other.

Fig.1



2.) Adjust the tension of the strap to fit snugly but comfortably, around your chest. Wrap the belt around your chest as shown (Fig.2).

Fig.2



3.) Center and position the belt as shown, at heart level, just below your pectoral muscles or breasts (but not too low) and attach the other end of the strap to the transmitter. The logo should be positioned at the center of your chest.

4.) Moisten the transmitter electrodes. For best results, the belt should be worn directly on your skin. A small amount of moisture is needed to assist in conducting the electrical impulses generated from your heart beats to the transmitter. Gently pull belt away from skin and apply a small drop of water or saline solution to each of the two electrodes (one on each side) (Fig. 3).

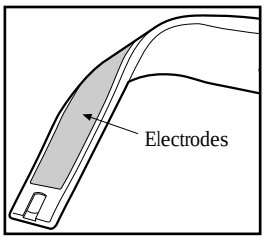


Fig.3

If you prefer to wear your belt over a light shirt you will need to generously moisten the areas of the shirt directly beneath the electrodes in order to insure proper signal pick-up. You may wear as many layers of clothing as desired over the transmitter belt without effecting the operating range.

5.) Put your wrist monitor on. The watch doesn't have to be attached to your wrist to register your heart rate it just has to be within 3 feet of your chest.

Exercising with your Basix

6.) Heart Rate - From Time of Day mode click MODE button once to go to Heart Rate mode and begin your exercise. If your transmitter is correctly attached, the running man indicator on the watch display should begin to blink and your current heart rate in beats per minute will come up on the display. If no heart rate is detected for 5 min. the heart rate circuit will switch itself off. The "♥ " indicator tells if the heart rate circuit is on. To switch it back on after it has shut off, simply restart the Heart Rate mode by clicking the MODE button.

7.) The Target Zone - Your watch will provide both a visual indicator (by flashing the heart rate digits) and an audible alarm (beeping) if your heart rate is above or below your set target zone range. The "TZ" indicator with the "HIGH" or "LOW" will indicate if your heart rate is within, above or below the set target zone, respectively. The beeping alarm can be turned on or off by pressing the Alarm button (indicated by the"•))" on the display).

Troubleshooting

•I can't get a Heart Rate reading? -The most common cause for the heart rate not turning on or working erratically is that the belt is not positioned correctly or not moistened properly. Make sure that the belt is positioned high enough on your chest (too high is better than too low) and properly moistened. The tension should be comfortable but it shouldn't be so loose that it slides down the chest. Also make sure that your watch is within the 3ft. transmitting distance of the transmitter and check the angle of its position (at further distances, the watch face should be parallel and facing the transmitter, instead of on an angle).

It is also known that a small percentage of the population may have trouble getting an accurate heart rate reading with this type of device due to the many various intricacies of the heart rate signal. The signal may be too weak on the surface of the skin, stronger in a different location of the chest or irregular in waveform. Also, if the user has had recent heart problems, surgery, or other various differentiating factors, they might cause a problem. If you are experiencing difficulties in picking up a steady signal, you may want to try your monitor on another person, or try positioning the belt higher on your chest, or shifting it more to the left or right of your chest (instead of centering the logo).

•I have a blank screen or missing digits? -This can be an indication of mechanical shock damage, a dead battery or possibly moisture damage. If this occurs, you could first try a Global Reset (see below) otherwise send it in for service. Repairs should only be done by Acumen or an authorized Acumen service center.

*Global Reset -If your monitor should ever get stuck or act erratically due to dropping it, static shock or
some other unforeseen reason, this feature will allow you to reset the unit and return all settings back to their internal defaults. To perform this function press and hold both buttons at once. Caution: THIS WILL CLEAR EVERYTHING! Including all of your personal settings.

•My heart rate readings act strange while in my car or on an airplane? -Though the Basix is designed with high integrity interference elimination circuitry, extremely excessive electrical or magnetic fields like those in a vehicle (or on board an aircraft) can cause disturbances in the heart rate readings. When your monitor detects too much interference such as this, it will usually display "00" or "- -" and eventually turn its heart rate circuit off. The "♥" indicator tells you if the heart rate circuit is on. In most cases holding the watch within a foot of the front of the chest belt will allow your watch to receive the signal and display your heart rate accurately.

Taking Care Of Your Basix

Your Acumen Heart Rate Monitor was built with a commitment to quality and dependability. To extend the life of your monitor and keep it operating at its peak, please read your instructions carefully and keep the following tips in mind.

Care & Maintenance

• To maximize the life of your heart monitor it is important that you keep all of its components clean and always dry off any moisture before putting it away. For cleaning, use only mild soap and water. Be careful to never use abrasive cleansers or chemicals as they will cause permanent damage.

• For safekeeping, always store your monitor in its original box and in a safe, mild and dry location. Be sure not to expose it to extreme temperatures such as, leaving it in direct sunlight or in a hot or freezing cold car for extended periods of time.

General Precautions

• Although your Heart Rate Monitor is water resistant, be sure not to operate its buttons under water as pressure can cause them to leak.

• The transmitter will automatically shut itself off once
you have disconnected it from your chest. However, it is important to thoroughly dry it off after every use,
since moisture on the electrodes can cause it to remain on longer.
• Be sure not to excessively twist or bend the electrode portions of the belt (never bend backwards), especially when storing it. This can permanently damage their conductivity and cause mechanical damage to the internal circuit.

Battery Replacement

Should your monitor need battery replacement we recommend that you take it to a local jewelry store or an authorized Acumen service center in order to guarantee that it will maintain it's water resistance. Improper battery replacement or service will void the warranty. Repairs should only be performed by an Acumen service center. Refer to the service card in the back of this instruction manual for details.

Technical Specifications

Shock Resistant	Standard shock resistance.
Water Resistance	30 meters. Not intended for diving.
Operating Temperature	0 to 50 C (32 to 122 F)
Battery Type	Transmitter - Lithium CR2032 Watch-Lithium CR2032
Battery Life	Approx. 2 years, avg HR use of 1 hr./day, 7 days/week.
Time Default Mode	After 5 minutes of no key press or no heart rate,watch returns to the tim of-day mode.
Global Reset	This feature will clear all memory data and user settings and return all settings to the default values listed. Press and hold both buttons for 2 seconds. (Also happens at battery replacement.)

Technical Display Guide

Display Items	Default Setting	Range
Time	8 AM **AM & PM indicators active only in the Setting Modes.*	12/24hr. clock
Alarm Time	8 AM/ OFF	ON/OFF
Age	30 years	7 - 99
Heart Rate Display		0 (20) - 250 bpm
TZ Alarm	OFF	ON/OFF
Upper Target Zone Limit	162 beats per minute	OFF - 250
Lower Target Zone Limit	124 beats per minute	OFF - 250

Note: TZ High cannot be set less than TZ Low and TZ Low cannot be set greater than TZ High. However, they can be set within 1 beat of each other, or either one can be set to OFF.

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